

# LUPOY SC1004A

Injection Molding, PC

## Description

General Purpose, High Toughness  
Chemical resistance, High Impact (at Low Temperature)

## Application

Mobile Phone Housing

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.2
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.5~0.7
Melt Flow Rate	300°C/1.2kg	ASTM D1238	g/10min	11
<b>Mechanical</b>				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	560
Tensile Elongation, 3.2mm		ASTM D638		
@ Yield	50mm/min		%	
@ Break	50mm/min		%	100
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	900
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	21,000
IZOD Impact Strength, 3.2mm (Notched)	23°C -30°C	ASTM D256	kg·cm/cm kg·cm/cm	70 55
Rockwell Hardness	R-Scale	ASTM D785	-	117
<b>Thermal</b>				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	128
Vicat Softening Temperature	5kg, 50°C/h	ASTM D1525	°C	
Flammability		UL94		
0.7mm			class	HB
1.6mm			class	
2.5mm			class	
3.2mm			class	
Relative Temperature Index		UL 746B		
Electrical			°C	80
Mechanical with Impact			°C	80
Mechanical without Impact			°C	80

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection moluded specimens and after 48 hours storage at 23°C, 50% relative humidity.

Updated : May-25, 2018

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.

# LUPOY SC1004A

Injection Molding, PC

## Description

General Purpose, High Toughness  
Chemical resistance, High Impact (at Low Temperature)

## Application

Mobile Phone Housing

## Electrical

Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts
Surface Resistivity		IEC 60093	Ohm
Volume Resistivity	23℃	ASTM D257	Ohm·m
Arc Resistance	23℃	ASTM D495	Ohm·cm
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm
Dielectric Constant (10 <sup>6</sup> Hz)	23℃	ASTM D150	sec

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection molded specimens and after 48 hours storage at 23℃, 50% relative humidity.

## Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	100 ~ 110
Drying Time		hrs	3 ~ 5
Maximum Moisture Content		%	0.02
Melt Temperature		℃	290 ~ 310
Cylinder Temperature	Rear	℃	275 ~ 290
	Middle	℃	285 ~ 305
	Front	℃	290 ~ 310
Nozzle Temperature		℃	285 ~ 305
Mold Temperature		℃	80 ~ 110
Back Pressure		kg/cm <sup>2</sup>	10 ~ 40
Screw Speed		rpm	40 ~ 70

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

Updated : May-25, 2018

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.